

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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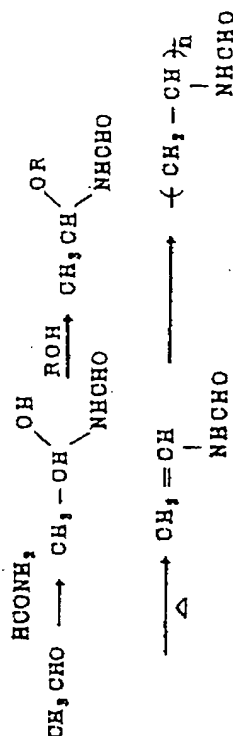
APPLICATION DATE : 18-10-84  
APPLICATION NUMBER : 59219301

APPLICANT : MITSUBISHI CHEM IND LTD;

INVENTOR : SATO KOICHI;

INT.CL. : C08F 26/02

TITLE : PRODUCTION OF  
N-VINYLFORMAMIDE POLYMER



ABSTRACT : PURPOSE: To produce the title high-quality polymer in high yields without using any highly toxic compound, by reacting formamide with acetaldehyde, reacting the product with an alcohol, eliminating an alcohol group from the product and polymerizing the product.

CONSTITUTION: Formamide is reacted with acetaldehyde in the presence of a basic catalyst to obtain N-(α-hydroxyethyl)formamide (A). Compound A is reacted with a prim. or sec. alcohol in the presence of an acidic catalyst to obtain an N-(α-alkoxyethyl)formamide (B). Compound B is heated to 250–600°C in a vapor phase to obtain N-vinylformamide (C) by eliminating an alcohol group. The title polymer is produced by polymerizing compound C in the presence of a radical initiator. According to this process, it is possible to produce easily the title high-quality polymer in extremely good yield without using any highly toxic compound by the above reaction shown in the formula.

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